UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/922,750	08/07/2001	Ai-Chun Pang	06720.0078	9580

570 7590 08/23/2005

AKIN GUMP STRAUSS HAUER & FELD L.L.P.
ONE COMMERCE SQUARE
2005 MARKET STREET, SUITE 2200
PHILADELPHIA, PA 19103

EXAMINER	
KHUONG, LEE T	
ART UNIT	**PAPER NUMBER**
2665	

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/922,750	PANG ET AL.	
	Examiner	Art Unit	
	Lee Khuong	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 June 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *18,23 and 32* is/are allowed.

6)☒ Claim(s) *1-14,17,19,20,22,25,26,28,29 and 31* is/are rejected.

7)☒ Claim(s) *15,16,21 and 30* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/11/05; 7/5/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-14, 17, 19-20, 22, 25-26, 28-29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barany et al. (US 6,434,140), hereinafter referred as Barany, in view of Duncan et al. (US 5,953,331), hereinafter is referred as Duncan and further in view of Lupien et al. (US 6,463,055), hereinafter is referred as Lupien.

Regarding claim 1, Barany discloses a system for providing voice communications between an end terminal (Fig. 3, 317, ***an H.323 terminal***) in a packet data network (Fig. 3, 314, ***an IP network***) and a wireless communication device (Fig. 3, 307, ***a mobile terminal***), comprising:

a packet communication supporting subsystem (Fig. 3, 306, ***a GPRS-136 network***) communicating with the packet data network (Fig. 3, 314, ***an IP network***).

Barany does not disclose expressly the packet communication supporting subsystem operating to locate the wireless communication device.

Lupien discloses the packet communication supporting subsystem (Fig. 4, ***GPRS network***) operating to locate (***Location Tracking within and Across GPRS Service Areas***) the

wireless communication device (see col. 9, lines 30-41, ***location update with an attachment request when roaming across a GPRS network, similar to a power-up registration for a wireless terminal***).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the location update of Lupien with VoIP of Barany for providing inter-communication between a circuit-switched network and a packet-switched network between a wireless terminal and an H.323 terminal.

The suggestion/motivation for doing so would have been to minimize the integration upgrading cost for a circuit-switched network to be able to provide VoIP with a packet-switched network.

Barany discloses a base station subsystem (Fig. 3, 302, ***BSSx***) communicating with the wireless communication device (Fig. 3, ***MSy***) and the packet communication supporting subsystem (Fig. 3, 306, ***GPRS-136 network***) (see col. 4, lines 32-39, ***the BSSx 302 communicates with the mobile station MSy 307 via MSC 303 and the GPRS-136 network 306 directly***), the packet communication supporting subsystem communicating data packets between the base station subsystem and the packet data network (see col. 4, lines 32-42 and col. 5, lines 25-33, ***the GPRS-136 network communicates with the BSSx 302 and the Packet Data Network 314***); and a Voice-over-Internet-Protocol Mobile Switching Center ("VMSC") (Fig. 3, 303, ***the Vocoder of an MSC*** and 313, ***a Media Gateway equivalent to a PCU to provide stream data converting to IP packet***) communicating with the packet communication supporting subsystem (Fig. 3, 306, ***the GPRS-136 network***) through a packet-switched network (see col. 4, lines 46-52, ***the MG 313 converts voice stream format to media packets format, then sends to SGSN of***

GPRS-136 network 306) and communicating with the base station subsystem through a circuit-switched network (Fig. 3, 303, ***a circuit-switched network***, col. 4, lines 43-46, ***the MG 313 receives a bearer data from a circuit switched network MSC/G-MSC 303***).

Barany does not disclose expressly the Vocoder of the MSC 303 and the Media Gateway/MG 313 (PCU) can be co-located within an MSC that communicates with the packet communication supporting subsystem and communicates with the base station subsystem.

Duncan discloses an MSC 100 in Fig. 3 (VMSC) (which comprises a Vocoder 130-1 and a packet switch 115, Fig. 3) that communicates with the packet system (Fig. 3, 300, ***a packet network***) and communicates with the base station subsystem (Fig. 3, 20-1, ***a base station***).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the MSC of Duncan with the MSC of Barany for providing an integrated MSC to minimize the required separate hardware.

The suggestion/motivation for doing so would have been to minimize the required separate hardware from which could result in reducing the manufacturing cost of the separate equipments.

Regarding claims 2, 14, 20, 25 and 29, Barany, Duncan and Lupien disclose all claimed limitations set forth in the rejection of claim 1. Barany discloses a network communicating between the packet data network and the wireless communication device implements General Packet Radio Service ("GPRS") (see Fig. 3, 306, ***the GPRS-136 network,*** col. 4, lines 40-42 and col. 5, lines 25-33).

Regarding claim 3, Barany, Duncan and Lupien disclose all claimed limitations set forth in the rejection of claim 2. Barany discloses the packet communication supporting subsystem (Fig. 3, 306, ***the GPRS-136 network***) includes a Gateway GPRS Support Node ("GGSN") (***GGSN of GPRS-136 Network*** in Fig. 3) and a Serving GPRS Support Node ("SGSN") (***SGSN of GPRS-136 Network*** in Fig. 3), the GGSN communicates with the packet data network, and the SGSN communicates with the GGSN and the VMSC (***Fig. 3, 303, MSC/G-MSC***) (see Fig. 3, col. 4, lines 46-52).

Regarding claim 4, Barany, Duncan and Lupien disclose all claimed limitations set forth in the rejection of claim 1. Barany discloses the base station subsystem (Fig. 3, 302, ***BSSx***) communicates with the packet communication supporting subsystem (Fig. 3, 306, ***GPRS-136 network***) through a base station Packet Control Unit (Fig. 3, 313, ***Media Gateway***) (see col. 4, lines 22-39, ***the BSSx 302 communicates with GPRS-136 network through a Media Gateway 313***).

Barany does not expressly discloses the base station subsystem (Fig. 3, 302, ***BSSx***) includes a Base Station Controller and a Base Transceiver Station, the BSC communicates with the packet communication supporting subsystem, and the BTS communicates with the wireless communication device.

Lupien discloses the base station subsystem (Fig. 4, BSS not shown, see col. 19, lines 21-22) comprises a Base Station Controller (Fig. 4, 39, ***BSC***) that communicates with a packet communication supporting subsystem (Fig. 4, 32, ***SGSN***) (see col. 19, lines 22-24 and col. 12, lines 40-50, ***the BSC logically provides the termination of the Gb' interface from the SGSN***)

and the BTS (Fig. 4, 26, ***a Base Station***) that communicates with a wireless terminal (see col. 12, lines 40-50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the BSC and the BTS of Lupien with the BSS of Barany for providing network access of a class A/B wireless terminal.

The suggestion/motivation for doing so would have been to provide dual mode network accessing for wireless terminal in both Circuit-switched and Packet-switched network.

Regarding claim 5, Barany, Duncan and Lupien disclose all claimed limitations set forth in the rejection of claim 1. Barany discloses VMSC (Fig. 3, 313, ***MG***) includes a vocoder (Fig. 3, 303, ***a vocoder is interfacing the circuit-switched 303 and the MG 313***) and a Packet Control Unit ("PCU") is inherently (Fig. 3, 313, ***the Media Gateway is able to convert voice stream data to packet data to be sent to/received from the SGSN***) communicating with the vocoder, the vocoder communicates with the circuit-switched network to receive voice signals from or submit voice signals to the base station subsystem (see col. 4, lines 32-39, lines 60-61), and the PCU (Fig. 3, 313, ***the MG***) communicates with the packet-switched network to receive voice packets from or submit voice packets to the packet communication supporting subsystem (see col. 4, lines 43-52).

Regarding claim 6, Barany, Duncan and Lupien disclose all claimed limitations set forth in the rejection of claim 5. Barany' vocoder is inherently compresses digitized data stream into compressed data signals and inherently decompresses the compressed data signals into digitized

data stream and the PCU (Fig. 3, ***Media Gateway 313***) transmits and receives the voice signals in packet form (see col. 4, lines 43-67).

Regarding claims 7, 17, 22, 26 and 31, Barany, Duncan and Lupien disclose the wireless communication device is a mobile phone (Fig. 3, 307, ***a mobile terminal***) and the end terminal is a H.323 terminal (Fig. 3, 317, ***a H.323 terminal***).

Regarding claim 8, Barany, Duncan and Lupien disclose all claimed limitations set forth in the rejection of claim 1. Barany discloses activating the communication between the VMSC and the packet data network (Fig. 3, 314, ***the IP network***) (see col. 4, lines 43-67).

Lupien discloses performing a location update of the wireless communication device (see col. 9, lines 30-67 and col. 10, lines 1-2); authenticating the identity of the wireless communication device (see col. 10, lines 16-67 and col. 11, lines 1-25); performing a ciphering procedure for the wireless communication device (see col. 10, lines 16-67 and col. 11, lines 1-25); notifying the VMSC (MSC 23 in Fig. 4) of the registration of the wireless communication device (see col. 20, lines 27-46); performing a registration of the wireless communication device to the packet data network (see col. 20, lines 37-41, ***performing a registration of the mobile station to the packet data network***); notifying the wireless communication device of the completion of location update (see col. 20, lines 44-46, ***the mobile station has made an access on the GPRS/packet data network***).

Regarding claim 9, Barany discloses performing channel assignment (see Fig. 3, col. 4, lines 32-52 and col. 5, lines 25-33); connecting the end terminal and the wireless communication device through the VMSC (see Fig. 3, col. 4, lines 32-52 and col. 5, lines 25-33); performing a call setup procedure for the wireless communication device (see col. 4, lines 32-52 and col. 5, lines 25-33); establishing a voice communication channel between the VMSC (Fig. 3, 303, ***MSC/G-MSC***) and the packet data network (see col. 4, lines 32-52 and col. 5, lines 25-33).

Lupien discloses performing authentication and ciphering setup procedures for the wireless communication device (see col. 10, lines 16-67 and col. 11, lines 1-25); alerting the end terminal and the wireless communication device (see col. 10, lines 3-15, ***alerting end users***); and performing a Packet Data Protocol ("PDP") context activation procedure to create a voice PDP context (see col. 11, lines 42-65, ***Packet Data Protocol context activation***).

Regarding claim 10, Lupien discloses disconnecting voice communications by the wireless communication device (see Fig. 13, col. 35, lines 1-2, ***M-ES initiates a call disconnect***, col. 10, lines 3-15) and sending a release signal to the end terminal by the VMSC (see col. 35, lines 5-10, ***a S-MSC disconnects the call***); exchanging disengage requests between the VMSC and the end terminal (see col. 35, lines 5-10); and performing a voice PDP context deactivation procedure (see col. 34, lines 4-17, ***deactivating the active PDP contexts***).

Regarding claim 11, Barany discloses establishing a voice communication channel between the VMSC (Fig. 3, 303, ***MSC/G-MSC***) and the end terminal (Fig. 3, 317, ***the H.323 terminal***) (see col. 4, lines 32-52 and col. 5, lines 25-33); performing channel assignment (see

Fig. 3, col. 4, lines 32-52 and col. 5, lines 25-33); connecting the end terminal and the wireless communication device through the VMSC (see Fig. 3, col. 4, lines 32-52 and col. 5, lines 25-33); performing a call setup procedure for the wireless communication device (see col. 4, lines 32-52 and col. 5, lines 25-33).

Lupien discloses paging the wireless communication device (see col. 20, lines 1-9); performing authentication, and ciphering setup procedures for the wireless communication device upon receiving a response from the wireless communication device (see col. 10, lines 16-67 and col. 11, lines 1-25); alerting the wireless communication device and alerting the end terminal in the packet data network (see col. 10, lines 3-15, ***alerting end users***); and activating voice communications for the wireless communication device by the VMSC (see col. 19, lines 65-67 and col. 20, lines 1-9).

Regarding claim 12, Barany discloses a system for providing voice communications between a H.323 terminal (Fig. 3, 317, ***an H.323 terminal***) in a packet data network (Fig. 3, 314, ***an IP network***) and a mobile phone (Fig. 3, 307, ***a mobile terminal***), comprising:

a packet communication supporting subsystem (Fig. 3, 306, ***a GPRS-136 network***) communicating with the packet data network (Fig. 3, 314, ***an IP network***), the packet communication supporting subsystem (Fig. 3, 306, ***the GPRS-136 network***) comprising a Gateway GPRS Support Node ("GGSN") (***a GGSN of GPRS-136 Network*** in Fig. 3) and a Serving GPRS Support Node ("SGSN") (***a SGSN of GPRS-136 Network*** in Fig. 3), the GGSN communicates with the packet data network, and the SGSN communicates with the GGSN (see Fig. 3, col. 4, lines 53-55, ***the SGSN communicates with the GGSN via GTP***).

Barany does not disclose expressly the Vocoder of the MSC 303 and the Media Gateway/MG 313 (PCU) can be co-located within an MSC that communicates with the packet communication supporting subsystem and communicates with the base station subsystem.

Duncan discloses an MSC 100 in Fig. 3 (VMSC) (which comprises a Vocoder 130-1 and a packet switch 115, Fig. 3) that communicates with the packet system (Fig. 3, 300, ***a packet network***) and communicates with the base station subsystem (Fig. 3, 20-1, ***a base station***).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the MSC of Duncan with the MSC of Barany for providing an integrated MSC to minimize the required separate hardware.

The suggestion/motivation for doing so would have been to minimize the required separate hardware from which could result in reducing the manufacturing cost of the separate equipments.

Barany and Duncan do not disclose expressly the packet communication supporting subsystem operating to locate the wireless communication device.

Lupien discloses the packet communication supporting subsystem (Fig. 4, ***GPRS network***) operating to locate (***Location Tracking within and Across GPRS Service Areas***) the wireless communication device (see col. 9, lines 30-41, ***location update with an attachment request when roaming across a GPRS network, similar to a power-up registration for a wireless terminal***).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the location update of Lupien with VoIP of Barany for providing inter-

communication between a circuit-switched network and a packet-switched network between a wireless terminal and an H.323 terminal.

The suggestion/motivation for doing so would have been to minimize the integration upgrading cost for a circuit-switched network to be able to provide VoIP with a packet-switched network.

Barany discloses a base station subsystem (Fig. 3, 302, ***BSSx***) communicating with the mobile phone (Fig. 3, ***MSy***) and the SGSN (Fig. 3, 306, ***the SGSN of GPRS-136 network***) (see col. 4, lines 32-39, ***the BSSx 302 communicates with the mobile station MSy 307 via MSC 303 and the GPRS-136 network 306 directly***), the packet communication supporting subsystem communicating data packets between the base station subsystem and the packet data network (see col. 4, lines 32-42 and col. 5, lines 25-33, ***the GPRS-136 network communicates with the BSSx 302 and the Packet Data Network 314***);

Barany does not expressly discloses the base station subsystem (Fig. 3, 302, ***BSSx***) includes a Base Station Controller and a Base Transceiver Station, the BSC communicates with the packet communication supporting subsystem, and the BTS communicates with the wireless communication device.

Lupien discloses the base station subsystem (Fig. 4, BSS not shown, see col. 19, lines 21-22) includes a Base Station Controller (Fig. 4, 39, ***IW GPRS-BSC***) and a Base Transceiver Station (Fig. 4, 26, ***a Base*** Station). The BSC communicates with the SGSN (Fig. 4, 32, ***SGSN***) (see col. 19, lines 22-24 and col. 12, lines 40-50, ***the BSC logically provides the termination of the Gb' interface from the SGSN***) and the BTS (Fig. 4, 26, ***a Base Station***) that communicates with the mobile terminal (see col. 12, lines 40-50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the BSC and the BTS of Lupien with the BSS of Barany for providing network access of a class A/B wireless terminal.

The suggestion/motivation for doing so would have been to provide dual mode network accessing for wireless terminal in both Circuit-switched and Packet-switched network.

Barany and Duncan disclose a Voice-over-Internet-Protocol Mobile Switching Center ("VMSC") (Fig. 3, 303, ***the Vocoder of an MSC*** and 313, ***a Media Gateway equivalent to a PCU to provide stream data converting to IP packet***) and communicating with the SGSN (Fig. 3, 306, ***the SGSN of the GPRS-136 network***) through a packet-switched network (see col. 4, lines 46-52, ***the MG 313 converts voice stream format to media packets format, then sends to SGSN of GPRS-136 network 306***) and communicating with the BSC (Fig. 3, 302, ***BSSx***) through a circuit-switched network (Fig. 3, 303, ***a circuit-switched network***) (see col. 4, lines 43-46, ***the MG 313 receives a bearer data from a circuit switched network MSC/G-MSC 303***), Barany discloses the VMSC (Fig. 3, 313, ***MG***) includes a vocoder (Fig. 3, 303, ***a vocoder is interfacing the circuit-switched 203 and the MG 313***) and a Packet Control Unit ("PCU") (Fig. 3, 313, ***the Media Gateway is able to convert voice stream data to packet data to be sent to/received from the SGSN***) is inherently communicating with the vocoder, the vocoder communicates with the circuit-switched network to receive voice signals from or submit voice signals to the base station subsystem (see col. 4, lines 32-39, lines 60-61), and the PCU (Fig. 3, 313, ***the MG***) communicates with the packet-switched network to receive voice packets from or submit voice packets to the packet communication supporting subsystem (see col. 4, lines 43-52).

Regarding claim 13, Barany discloses the VMSC (Fig. 3, 303, MSC/G-MSC) communicating with the wireless communication device (Fig. 3, 307, ***a mobile station***) through a circuit-switched network (see col. 4, lines 32-46) and communicating with the end terminal (Fig. 3, 317, ***an H.323 terminal***) through a packet-switched network (see col. 4, lines 45-52 and col. 5, lines 25-33); activating the communication between the VMSC and the packet data network (Fig. 3, 314, ***the IP network***) (see col. 4, lines 43-67).

Barany does not disclose expressly the Vocoder of the MSC 303 and the Media Gateway/MG 313 (PCU) can be co-located within an MSC that communicates with the packet communication supporting subsystem and communicates with the base station subsystem.

Duncan discloses an MSC 100 in Fig. 3 (VMSC) (which comprises a Vocoder 130-1 and a packet switch 115, Fig. 3) that communicates with the packet system (Fig. 3, 300, ***a packet network***) and communicates with the base station subsystem (Fig. 3, 20-1, ***a base station***).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the MSC of Duncan with the MSC of Barany for providing an integrated MSC to minimize the required separate hardware.

The suggestion/motivation for doing so would have been to minimize the required separate hardware from which could result in reducing the manufacturing cost of the separate equipments.

Barany and Duncan do not expressly disclose performing a location update of the wireless communication device; authenticating the identity of the wireless communication device; performing a ciphering procedure for the wireless communication device; notifying the

VMSC of the registration of the wireless communication device; performing a registration of the wireless communication device to the packet data network; notifying the wireless communication device of the completion of location update.

Lupien discloses performing a location update of the wireless communication device (see col. 9, lines 30-67 and col. 10, lines 1-2); authenticating the identity of the wireless communication device (see col. 10, lines 16-67 and col. 11, lines 1-25); performing a ciphering procedure for the wireless communication device (see col. 10, lines 16-67 and col. 11, lines 1-25); notifying the VMSC (MSC 23 in Fig. 4) of the registration of the wireless communication device (see col. 20, lines 27-46); performing a registration of the wireless communication device to the packet data network (see col. 20, lines 37-41, ***performing a registration of the mobile station to the packet data network***); notifying the wireless communication device of the completion of location update (see col. 20, lines 44-46, ***the mobile station has made an access on the GPRS/packet data network***) for registering a mobile terminal.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine registration method of Lupien with Barany' system to achieve a registration method for a mobile terminal with a dual mode of service (circuit and packet switched).

The suggestion/motivation for doing so would have been to provide dual mode services for the mobile terminal.

Regarding claim 19, Barany discloses a call-making method for a mobile phone (Fig. 3, 307, ***a mobile station MSy***) in a network implementing General Packet Radio Service (Fig. 3,

306, ***GPRS-136 Network***) to activate Voice-over-Internet-Protocol communications with an end terminal (Fig. 3, 317, ***a H.323 terminal***) in a packet data network (Fig. 3, 314, ***an IP Network***). Barany discloses performing channel assignment (see Fig. 3, col. 4, lines 32-52 and col. 5, lines 25-33); connecting the end terminal and the wireless communication device through the VMSC (see Fig. 3, col. 4, lines 32-52 and col. 5, lines 25-33); performing a call setup procedure for the wireless communication device (see col. 4, lines 32-52 and col. 5, lines 25-33); establishing a voice communication channel between a VMSC (Fig. 3, 303, ***a MSC/G-MSC***) and the packet data network (see col. 4, lines 32-52 and col. 5, lines 25-33), the VMSC communicating with the wireless communication device through a circuit-switched network and with the end terminal through a packet-switched network (see col. 4, lines 45-52 and col. 5, lines 25-33).

Barany does not disclose expressly performing authentication and ciphering setup procedures for the wireless communication device; alerting the end terminal and the wireless communication device; and performing a Packet Data Protocol ("PDP") context activation procedure to create a voice PDP context.

Lupien discloses performing authentication and ciphering setup procedures for the wireless communication device (see col. 10, lines 16-67 and col. 11, lines 1-25); alerting the end terminal and the wireless communication device (see col. 10, lines 3-15, ***alerting end users***); and performing a Packet Data Protocol ("PDP") context activation procedure to create a voice PDP context (see col. 11, lines 42-65, ***Packet Data Protocol context activation***) for registering a mobile terminal.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the registration method of Lupien with Barany' system to achieve a registration of a mobile terminal with a dual mode of service (circuit and packet switched).

The suggestion/motivation for doing so would have been to provide dual mode services for the mobile terminal.

Regarding claim 28, this claim has similar limitations of claim 11. Therefore it is rejected under Barany for the same reasons set forth in the rejections of Barany. Barany further discloses activating voice communications for the wireless communication device by the VMSC (see col. 4, lines 43-67 and col. 5, lines 23-33).

3. Claims 24 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barany in view Duncan and further in view of Sayers et al. (US 6,539,237) hereinafter is referred as Sayers.

Regarding claim 24, Barany and Duncan discloses the location update and call-registration method in claims 8.

Barany does not disclose expressly the call-releasing method for voice communication between a wireless device and an end terminal.

Sayers discloses a voice communications between a wireless communication device (Fig. 1, 4, ***a MS in a public wireless network 15***) and an end terminal (Fig. 1, 4, ***EP, a H.323***

Terminal in private Networks 14) in a packet data network (Fig. 1, 14, ***a wireless private network also discloses in Fig. 4 with a gatekeeper***).

Sayers discloses disconnecting voice communications by the wireless communication device (Fig. 13, MS) and sending a release signal to the end terminal by a Voice-over-Internet-protocol Mobile Switching Center ("VMSC") (Fig. 4, MSC) communicating with the wireless communication device through a circuit-switched network (Fig. 1, 16, ***BSC*** and 12, ***BTS***) and with the end terminal (Fig. 1, 27, ***P-BTS***) through a packet-switched network (Fig. 1, 14, ***a wireless private network also discloses in Fig. 4 with a gatekeeper***) (see Fig. 11 for Disconnect procedure originates from the MS side over to EP side); exchanging disengage requests between the VMSC and the end terminal (see Fig. 11 col. 21, lines 40-67 – col. 23, lines 1-4, ***exchanging releasing message between a public circuit switched network 15 and a private wireless packet network 14***); and performing a deactivation procedure (see col. 21, lines 40-67 – col. 23, lines 1-4, ***H.323 connection is terminated between the MS and the EP***) for setup/release calls in a VoIP communication method.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the call-releasing method of Sayers with Barany to achieve a fast and transparent call-release between two different wireless network.

The suggestion/motivation for doing so would have been to provide Inter-services for a public mobile terminal and an H.323 end terminal.

Regarding claim 27, this claim has similar limitations of claim 24. Therefore it is rejected under Barany in view of Sayers for the same reasons set forth in the rejections of claim 24.

Allowable Subject Matter

4. Claims 15, 16, 21 and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Claims 18, 23 and 32 are allowed.

Response to Arguments

6. Applicant's arguments filed 6/15/2005 have been fully considered but they are not persuasive.

Regarding to applicant's argument on page 6, lines 1-15, the applicant sated that "moving MG 313 into the circuit-switched network 303/304 would completely destroy the intended manner of operation of Barany's configuration because the PSTN gateway would no longer be able to allow both signaling and bearer traffic to be sent form the IP network 311 to the packet-switched network 306". Examiner disagrees and would like to point out that the media gateway main function is to interface between a circuit switched to a packet switched network. This is well known in the art that as the PCS cellular starts moving from a circuit switched network to a 2.5G or 3G, which is primarily working in packet switched network, it needs a either a gateway or an interface the old circuit switching network to the packet switching network. In Barany, it

shows two separate components with the MSC as the circuit switched network, 303, Fig. 3 of Barany and the Media Gateway, 313 as the interface to the packet switched network 306, see col. 4, lines 46-52. Barany' system does show the basic elements to provide the basic VoIP function; therefore, examiner believes the cited embodiment of the reference should satisfy the claimed limitations in claim 1.

Regarding to applicant's argument on page 6, lines 16-21, that "Duncan does not disclose any elements equivalent a media gateway", examiner would like to direct applicant's attention to Duncan's MSC 100 of Fig. 3. In element MSC 100, there are clearly an MSC controller 105 and a direct bi-directional bus/channel with the packet switch 106 as well as at least one vocoder 130 within the element MSC 100, see col. 2, lines 25-50. The MSC 100 of Duncan is clearly equivalent to the MSC 303 and Media Gateway 313 of Barany and also is equivalent to the applicant's VMSC 58. The VMSC 58 of the applicant performs two functions with the first function with a Vocoder to compress and uncompress Voice and the second function with a PCU to provide an interface between a circuit switched network and a packet switched network. Examiner believes both Barany and Duncan's in combination above elements have provided the same functions and within the same embodiment arrangement as the VMSC of the applicant. Therefore, examiner respectfully requesting applicant to amend the claims to be more clearly defined the applicant's invention to differ from Barany and Duncan's applications.

Regarding the applicant's argument that "Barany even teaches away from that modification in column 3, lines 55-56 which states that the preferred embodiment bypasses the vocoder", examiner disagrees and would like to direct applicant's attention to Barany's Fig. 2 and Fig. 3. In both figures, although not necessary, Barany clearly showed that it can be

implemented within the same embodiment of MSC and stated that in the prefer embodiment, Barany can implement the Vocoder in a mobile station/terminal to provide the voice compression function locally. It is well known for an ordinary person with skills in the art to know that implementing a Vocoder locally in the mobile terminal will lessen the use of the precious resource at the MSC and can improve the speed of network connection between connecting terminals.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lee Khuong whose telephone number is 571-272-3157. The examiner can normally be reached on 9AM - 5PM.

9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lee T. Khuong
Examiner
Art Unit 2665

ALPUS H. HSU
PRIMARY EXAMINER